Illinois Environmental Protection Agency

The second

L..Not assigned-La Salle Co. Matthiessen and Hegelew kind Co. TLD: Not assigned /co 000064782 SF/HRS

PRELIMINARY

ASSESSMENT

SCORESHEET

CONFIDENTIAL

OMB Approval Number: 2050-0095 Approved for Use Through: 4/95

Site Name: Matthiessen and Hegeler Zinc Co.

CERCLIS ID No.: Not assigned

Street Address: East side of La Salle City/State/Zip: La Salle, Il 61301

Investigator: Robert Casper Agency/Organization: Illinois EPA

Street Address: 2200 Churchill Road City/State: Springfield, Il

Date: 11/18/93

aste Characteristi	cs (WC) Calculations:		
1 Slag piles	Pile	Ref:2,5,11 WQ value	e maximum
Area	3.60E+05 sq ft	2.77E+04	2.77E+0

Ground Water Pathway Criteria List Suspected Release	
Are sources poorly contained? (y/n/u)	Y
Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	U
Is precipitation heavy? (y/n/u)	U
Is the infiltration rate high? (y/n/u)	N
Is the site located in an area of karst terrain? (y/n)	N
Is the subsurface highly permeable or conductive? (y/n/u)	N
Is drinking water drawn from a shallow aquifer? (y/n/u)	Y
Are suspected contaminants highly mobile in ground water? (y/n/u)	U
Does analytical or circumstantial evidence suggest ground water contamination? (y/n/u)	Υ
Other criteria? (y/n) N	_
SUSPECTED RELEASE? (y/n)	Y

Summarize the rationale for Suspected Release:

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Ground Water Pathway Criteria List Primary Targets Is any drinking water well nearby? (y/n/u)Has any nearby drinking water well been closed? (y/n/u)N Has any nearby drinking water well user reported foul-testing or foul-smelling water? (y/n/u)N Does any nearby well have a large drawdown/high production rate? (y/n/u) U Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance? (y/n/u) N Does analytical or circumstantial evidence suggest contamination at a drinking water well? (y/n/u) N Does any drinking water well warrant sampling? (y/n/u)N Other criteria? (y/n) PRIMARY TARGET(S) IDENTIFIED? (y/n) Y

Summarize the rationale for Primary Targets:

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GROUND WATER PATH	HWAY SCORESHEE	rs		
athway Characteristics			Ī	Ref.
Do you suspect a release? (y/n))	Ye	es	+
Is the site located in karst to	errain? (y/n)	No	0	1
Depth to aquifer (feet):		60	0	1
Distance to the nearest drinking	ng water well	(feet): 37	700	1
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	Refe	rences
1. SUSPECTED RELEASE	550		+ 	
2. NO SUSPECTED RELEASE		0		
LR =	550	0		
argets				
TARGETS	Suspected Release	No Suspected Release	Refe	rences
3. PRIMARY TARGET POPULATION 0 person(s)	0		+	
4. SECONDARY TARGET POPULATION	432	0		

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 0 person(s)	О		
4. SECONDARY TARGET POPULATION Are any wells part of a blended system? (y/n) Y	432	0	
5. NEAREST WELL	20	0	
6. WELLHEAD PROTECTION AREA >0 - 4 Miles	5	0	
7. RESOURCES	5	0	
T =	462	0	

WASTE CHARACTERISTICS

WC = | 100 | 0 |

GROUND WATER PATHWAY SCORE: | 100 |

Ground Water Target Populations

Primary Drink			pulatio Well I				Dist.			lation cved	Re	eference	,	Value
1 None							0.00	1	0		!	1,3	- + -	0
						+		- 			!	- 	.+·	
			. 			+		1					<u> </u>	
								1 					- + -	
***	Note	:	Maximum	of	- 	Well	s Are	Pr	inted	***		Total	-+ 	

Secondary Target Population Distance Categories | Served | Re 1,3,4 | 1 0 to 1/4 mile 1,3,4 Greater than 1/4 to 1/2 mile 9944 | 1,3,4 | 167 Greater than 1/2 to 1 mile 1,3,4 | 9 Greater than 1 to 2 miles 303 Greater than 2 to 3 miles 1,3,4 2**12** Greater than 3 to 4 miles | 5424 | 1,3,4 | 42 Total | 432

i	Apportionment	Documentation	for a	Blended	System

Surface Water Pathway Criteria List Suspected Release	
Is surface water nearby? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	Y
Is the drainage area large? (y/n/u)	N
Is rainfall heavy? (y/n/u)	N
Is the infiltration rate low? (y/n/u)	U
Are sources poorly contained or prone to runoff or flooding? (y/n/u)	Y
Is a runoff route well defined(e.g.ditch/channel to surf.water)? (y/n/u)	Y
Is vegetation stressed along the probable runoff path? (y/n/u)	N
Are sediments or water unnaturally discolored? (y/n/u)	N
Is wildlife unnaturally absent? (y/n/u)	N
Has deposition of waste into surface water been observed? (y/n/u)	N
Is ground water discharge to surface water likely? (y/n/u)	Y
Does analytical/circumstantial evidence suggest S.W. contam? (y/n/u)	U
Other criteria? (y/n) N	
SUSPECTED RELEASE? (y/n)	N
Summarize the rationale for Suspected Release:	

Summarize the rationale for Suspected Release:

Surface Water Pathway Criteria List Primary Targets	
Is any target nearby? (y/n/u) If yes: N Drinking water intake Y Fishery N Sensitive environment	Y
Has any intake, fishery, or recreational area been closed? (y/n/u)	N
Does analytical or circumstantial evidence suggest surface water contamination at or downstream of a target? (y/n/u)	N
Does any target warrant sampling? (y/n/u) If yes: N Drinking water intake N Fishery N Sensitive environment	N
Other criteria? (y/n) N	
PRIMARY INTAKE(S) IDENTIFIED? (y/n) Summarize the rationale for Primary Intakes:	N
continued	

continued		
Other criteria? (y/n)		
	PRIMARY FISHERY(IES) IDENTIFIED? (y/n)	N
Summarize the rationale for	Primary Fisheries:	
Other criteria? (y/n)	N	
	NSITIVE ENVIRONMENT(S) IDENTIFIED? (y/n)	 N
	Primary Sensitive Environments:	
		Ì

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SURFACE WATER PATHWAY SCORESHEETS

Pathway Characteristics				Ref.		
Do you suspect a release? (y/n)		N	Io			
Distance to surface water (feet	t):	C)	4,5		
Flood frequency (years):						
What is the downstream distance (miles) to: a. the nearest drinking water intake? b. the nearest fishery? c. the nearest sensitive environment? N.A.						
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	Refer	cences		
1. SUSPECTED RELEASE 0 0						
2. NO SUSPECTED RELEASE	 	500				
LR =	0	500				

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Drinking Water Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
3. Determine the water body type, flow (if applicable), and number of people served by each drinking water intake.			
4. PRIMARY TARGET POPULATION 0 person(s)	0		
5. SECONDARY TARGET POPULATION Are any intakes part of a blended system? (y/n): N	0	0	
6. NEAREST INTAKE	0	0	
7. RESOURCES	0	5	
T =	0	5	

Drinking Water Threat Target Populations

Intake Name	Primary (y/n)	Water	Body	Type/Flow	Population Served	Ref.	Value
None							
					lation Value		0
	Tot	cal Seco	ndary	7 Target Pop	pulation Val	Lue	0

*** Note: Maximum of 6 Intakes Are Printed ***

Apportionment	Documentation	for a	Blended	System

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Human Food Chain Threat Targets

	TARGETS	Suspected Release	No Suspected Release	References
	8. Determine the water body type and flow for each fishery within the target limit.			
-	9. PRIMARY FISHERIES	0		
	10. SECONDARY FISHERIES	0	12	
	T =	0	12	

Human Food Chain Threat Targets

Fishery Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value		
1 Illinois River	N	>10000 cfs	10	12		
	+		 			
	+	·	 	 		
			 +	 +- 		
	++		 + 	 +		
 		·	 	 + 		
the Water & Marrians as a	Total Primary Fisheries Value Total Secondary Fisheries Value					

*** Note: Maximum of 6 Fisheries Are Printed ***

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Environmental Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
11. Determine the water body type and flow (if applicable) for each sensitive environment.			
12. PRIMARY SENSITIVE ENVIRONMENTS	0		
13. SECONDARY SENSITIVE ENVIRONS.	0	0	
Т =	0	0	

Environmental Threat Targets

	·				
Ser	sitive Environment Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
1 Lit	tle Vermillion River	N	10-100 cfs	10	2
2 111	inois River	N	>10000 cfs	10	0
		ļ			
	Total Primary Sensitive : Total Secondary Sensitive Note: Maximum of 6 Sensi	e Enviror	nments Value	**	0

Surface Water Pathway Threat Scores

Threat	Likelihood of Release(LR) Score		Pathway Waste Characteristics (WC) Score	Threat Score LR x T x WC / 82,500
Drinking Water	500	5	100	3
Human Food Chain	500	12	100	7
Environmental	500	0	100	0

		•		•
SURFACE WAT	TER PATHWAY	SCORE:	10	

Soil Exposure Pathway Criteria List Resident Population		
Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination? (y/	/n/u)	-
Is any residence, school, or daycare facility located on adj land previously owned or leased by the site owner/operator		1
Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities	s? (y/n/u)	1
Have onsite or adjacent residents or students reported advers health effects, exclusive of apparent drinking water or air		
contamination problems? (y/n/u)]
Does any neighboring property warrant sampling? (y/n/u)]
Other criteria? (y/n) N		
DESTRUME PART AT A TARREST TO THE TARREST TO T	· (y/n)	
RESIDENT POPULATION IDENTIFIED?		
RESIDENT POPULATION IDENTIFIED:		

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SOIL EXPOSURE PATHWAY SCORESHEETS

Pathway Characteristics			- 	Ref.
Do any people live on or within of areas of suspected contami			Yes	11
Do any people attend school or of areas of suspected contami		ithin 200 ft	Yes	11
Is the facility active? (y/n):			Yes	11
			_	
LIKELIHOOD OF EXPOSURE	Suspected Contamination	References		
1. SUSPECTED CONTAMINATION LE =				
Targets				
2. RESIDENT POPULATION 0 resident(s) 0 school/daycare student(s)	0	11 11	-	
3. RESIDENT INDIVIDUAL	0			
4. WORKERS 101 - 1000	10	11		
5. TERRES. SENSITIVE ENVIRONMENTS	•			
6. RESOURCES	5			
T =	15			
LIACME OUADAOMEDICATOO			-	
WASTE CHARACTERISTICS WC =	100	-		
		-		
RESIDENT POPULATION THREAT SCORE:	10	-		
		•		
NEARBY POPULATION THREAT SCORE:	1 1	•		
Population Within 1 Mile: 1 - 10	, 000	-		
COLL EXPOSIDE DAMINIAN COORD-		-		
SOIL EXPOSURE PATHWAY SCORE:	11	-		

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Soil Exposure Pathway Terrestrial Sensitive Environments

Terrestrial Sensitive Environment Name	Reference	Value
None		+ -
		 +
	 +	 +
		 +- <i>-</i>
Total Terrestrial Sensitive Environ		

*** Note: Maximum of 7 Sensitive Environments Are Printed *** -----

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PA-Score 2.1 Scoresheets Matthiessen and Hegeler Zinc Co. - 11/23/93

Air Pathway Criteria List Suspected Release	
Are odors currently reported? (y/n/u)	1
Has release of a hazardous substance to the air been directly observed? $(y/n/u)$	ì
Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air? (y/n/u)	ì
Does analytical/circumstantial evidence suggest release to air? (y/n/u)	ì
Other criteria? (y/n) N	-
SUSPECTED RELEASE? (y/n)	1
Summarize the rationale for Suspected Release:	

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AIR PATHWAY SCORESHEETS

Pathway Characteristics			Ref.
Do you suspect a release? (y/	n)	No	
Distance to the nearest indiv	idual (feet):	5(00 2,5,11
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	- 	 	¦
2. NO SUSPECTED RELEASE	- 	500	
LR =	0	500	
Targets			
TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 0 person(s)	0		
4. SECONDARY TARGET POPULATION	0	79	
5. NEAREST INDIVIDUAL	0	20	
6. PRIMARY SENSITIVE ENVIRONS.	0		
7. SECONDARY SENSITIVE ENVIRONS	. 0	2	
8. RESOURCES	0	5	
T =	0	106	
WASTE CHARACTERISTICS			_
WC =	0	100	<u></u>
			<u>-</u>
IR PATHWAY SCORE:		65	

Air Pathway Secondary Target Populations

Distance Categories	Population	References	Value
Onsite	200	4,11	16
Greater than 0 to 1/4 mile	1468	4,11	41
Greater than 1/4 to 1/2 mile	2455	4,11	9
Greater than 1/2 to 1 mile	5958	4,11	8
Greater than 1 to 2 miles	5202	4,11	3
Greater than 2 to 3 miles	8277	4,11	1
Greater than 3 to 4 miles	3381	4,11	1
Total Secondary Population Value		79	

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Air Pathway Primary Sensitive Environments

Sensitive Environment Name		Reference	Value	
None				
Total Primary Sensitive Environments Value *** Note: Maximum of 7 Sensitive Environments Are Printed*** r Pathway Secondary Sensitive Environments				
Sensitive Environment Name	Distance	Reference	Value	
1 Wetlands	onsite	7 	2.5	
None			 	
	+		+ 	

Sensitive Environment Name	Distance	Reference	Value
1 Wetlands	onsite	7	2.5
None		 	
	ĺ		
		*	
Total Secondary Sensiti	ve Environm	ents Value	2

•	
SITE SCORE CALCULATION	SCORE
GROUND WATER PATHWAY SCORE:	100
SURFACE WATER PATHWAY SCORE:	10
SOIL EXPOSURE PATHWAY SCORE:	11
AIR PATHWAY SCORE:	65
SITE SCORE:	60

SUMMARY

 Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water? No If yes, identify the well(s).

If yes, how many people are served by the threatened well(s)? 0

- 2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?
 - A. Drinking water intake

No

B. Fishery

Yes Yes

- C. Sensitive environment (wetland, critical habitat, others)
- If yes, identity the target(s).

Little Vermilion River adjacent to the site is use for fishing. There are also wetlands in portions of the river along the site.

- 3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility? Yes
 - If yes, identify the properties and estimate the associated population(s) Contaminants may have been deposited by the wind but the extent and population involved is unknown.
- 4. Are there public health concerns at this site that are not addressed by PA scoring considerations?

Yes

If yes, explain:

Trespassers use the site for recreation.

REFERENCE LIST

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- Illinois Department of Public Health/Geological and Water Survey Well Site Survey Reports for the La Salle area; Il. State Water Survey 1992 Water Inventory Program Reports for La Salle and Peru, Il.
- 2. CERCLA Screening Site Inspection Report for Carus Chemical Company, November, 1991.
- 3. Illinois State Water Survey Well Site Survey Reports for La Salle, Peru, Oglesby and North Utica, Il.
- 4. USGS Topographic Quadrangle Maps for Ladd, Troy Grove, Spring Valley and La Salle, Il. 1990 Bureau of the Census Average Person Per Household for La Salle County (2.59). 1990 Il. Municipal Directory.
- 5. Illinois Department of Transportation Aerial Photographs for the Matthiessen and Hegeler site.
- 6. IEPA Files for La Salle Rolling Mills.
- 7. Illinois Department of Conservation. Review of Sensitive Environment letter of August 9, 1993 evaluating the Zinco (Matthiessen and Hegeler Zinc Co.) area. Wetland Inventory Maps.
- 8. IEPA Public Water Supplies microfiche files.
- 9. FIA Flood Hazard Boundary Map, March 19, 1976. U.S. Department of Housing and Urban Development, for the city of La Salle, Il.
- 10. Water Resources Data. Illinois. Water Year 1989. Volume 2. Illinois River Basin.
- 11. CERCLA Site Reconnaissance Visit of July 29-30 and August 18, 1993 at the Zinco (Matthiessen and Hegeler) property.

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